

REMARKS

Claims 1-3 and 5 were pending before the Office. No claims have been amended. No new claims have been added. Thus, claims 1-3 and 5 shall be pending upon entry of the amendments.

Pursuant to 35 U.S.C. §§ 121 and 372, and in view of 37 C.F.R. § 1.499 and PCT Rules 13.1 and 13.2, the Office Action requires an election of a single invention to which the claims must be restricted.

The Office Action requires election of a single group selected from the following groups:

Groups I, claim 1, directed to a method of treating or preventing cardiac arrhythmias, comprising administering to a patient a modulator of a potassium channel, including TWIK-1, TASK-1, GIRK-1, SK2 and PCN1;

Group II, claim 2, directed to a method for screening test compounds to identify modulators of the potassium channels TWIK-1, TASK-1, GIRK1, SK2 or PCN1 which are suitable for producing a medicament for the treatment and/or prophylaxis of cardiac arrhythmias, coronary heart disease or hypertension;

Group III, claim 3, directed to a pharmaceutical composition comprising a modulator or a plurality of modulators of the potassium channels TWIK-1, TASK-1, GIRK1, SK2 or PCN1 for the treatment and/or prophylaxis of cardiac arrhythmias, coronary heart disease or hypertension; and

Group IV, claim 4, directed to a method of treating cardiac arrhythmias, coronary heart disease or hypertension, comprising administering to a patient a modulator of gene products which are expressed in the human heart differentially between left atrium and left ventricle.

Applicants elect, with traverse, Group II, which encompasses claim 2, for further prosecution in this application.

Applicants reserve the right to file divisional applications to any non-elected subject matter. Reconsideration and withdrawal of the restriction requirement are respectfully requested in view of the remarks that follow.

The Office Action states that “the inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding technical features.” Applicants respectfully disagree.

Applicants respectfully point out that the M.P.E.P. in Section 1850(II) states that “an international application should relate to only one invention or, if there is more than one invention, the inclusion of those inventions in one international application is only permitted if all inventions are so linked as to form a single general inventive concept. With respect to a group of inventions claimed in an international application, unity of invention exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. The expression “special technical features” is defined in PCT Rule 13.2 as meaning those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art.”

The restriction requirement is not deemed proper because each of the claims of Groups I through IV are linked so as to form a single general inventive concept; namely, methods for identifying and using modulators of a particular set of potassium channels TWIK-1, TASK-1, GIRK1, SK2 or PCN1, which were identified it is believed for the first time as being differentially expressed in the atrium as compared to in the ventricle of the human heart. Since the Groups of the invention are linked by the above “special technical features” as required under PCT Rule 13.2, a restriction should not be proper.

In addition, the Office Action requires election of various species of the invention, which are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1. The species from which an election is required are:

- (A) If Groups I or IV, then must elect single disclosed species of the disorder and a species of modulator compound of TWIK-1, TASK-1, GIRK1, SK2 or PCN1; and
- (B) If Group II or III, then must elect single disclosed species of modulator of TWIK-1, TASK-1, GIRK1, SK2 or PCN1;

In view of Applicants' election of Group II, Applicants provisionally elect, with traverse, a modulator of TWIK-1 for further search and examination in this application.

Applicants reserve the right to file divisional applications to any non-elected subject matter.

Reconsideration and withdrawal of the species requirement are respectfully requested in view of the remarks that follow.

The species requirement is not deemed proper because each of the species of modulators of TWIK-1, TASK-1, GIRK1, SK2 or PCN1 are so linked as to form a single general inventive concept; namely, potassium channel proteins that are differentially expressed in the atrium as compared to the ventricle of the heart. Since the claims of the invention are linked by the above "special technical features" as required under PCT Rule 13.2, the election of species should not be proper.

Enforcing the present restriction and species requirements would result in inefficiencies and unnecessary expenditures by both the Applicants and the PTO, as well as prejudice to Applicants. Restriction has not been shown to be proper, especially since the requisite showing of a lack of unity of invention has not been made. Indeed, the search and examination of each species would

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likely be co-extensive and, in any event, would involve such interrelated art that the search and examination of the entire application can be made without undue burden on the Examiner.

Consequently, reconsideration and withdrawal of the requirement for restriction are respectfully requested.

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In view of the amendments and remarks made herein, the application is believed to be in condition for allowance. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance are respectfully requested. Please charge any required fee or credit any overpayment to Deposit Account No. 04-1105, reference number LeA36823[83859(303989)].

Respectfully submitted,

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